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Wetherill Mesa Development Concept Plan

November 1988

PUBLIC DOCUMENTS
DEPOSITORY ITEM

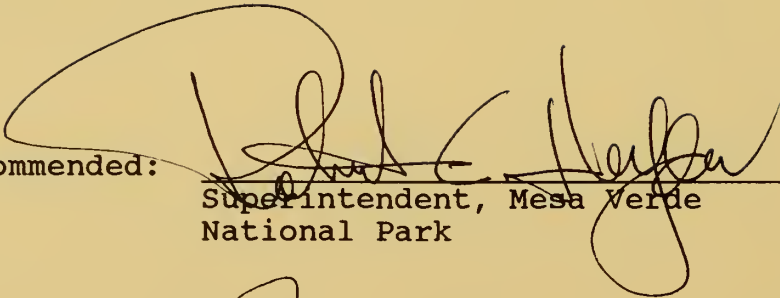
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Mesa Verde National Park

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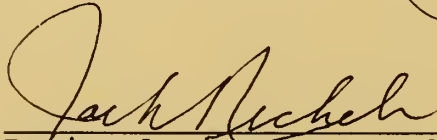


Superintendent, Mesa Verde
National Park

10/31/88

Date

Approved:



Regional Director, Rocky
Mountain Region **Acting**

11/8/88

Date

**FINDING OF NO SIGNIFICANT IMPACT, WETHERILL MESA DEVELOPMENT
CONCEPT PLAN, MESA VERDE NATIONAL PARK, COLORADO**

In September 1988 the National Park Service made available an Environmental Assessment (EA) for the Wetherill Mesa Development Concept Plan (DCP). The public was afforded 30 days to comment on the EA.

It is the decision of the National Park Service to implement the proposal described in the EA. Specific actions associated with this decision are illustrated in the final plan.

In addition to the proposal, two alternatives were addressed in the EA, they are summarized as follows:

Alternative A - Continue actions prescribed by the 1987 Wetherill Mesa Interim Plan.

Alternative B - Provides for use of a visitor transportation system to access Wetherill Mesa.

Public response to the EA was limited. Most respondents opposed opening Wetherill Mesa to private vehicular access and favored use of a bus system originating from Far View. They felt the use of private vehicles for access would increase visitation and degrade archeological resources and visitor experience. These respondents indicated the use of a bus system better controls visitation. If necessary, a fee should be charged to the visitor for use of the bus system. Respondents also questioned the visitor capacity noted in the General Management Plan (GMP) (2,240 visitors/day) and how this capacity was derived.

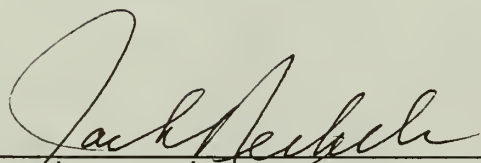
The plan proposes use of private vehicles for access from Far View to Wetherill Mesa. A mini-train would continue to transport visitors to mesa top ruins. Visitation would be controlled by capacity of the mini-train (about 200 visitors/hour). Wetherill Mesa's capacity, based on the need to protect archeological resources while providing a quality visitor experience, is above that of the mini-train. Therefore, the plan will continue to protect resources and provide opportunities for quality visitor experiences. The GMP's provision to evaluate and consider use of a park-wide transportation system triggered by the construction of park entrance facilities will remain in effect.

Implementation of the proposal will contribute to temporary and slight increases in the local construction work force. Public health and safety will be enhanced by public educational programs and improved sanitation facilities. Inventories and analysis indicate that archeological resources will not be adversely affected. No known species of threatened or endangered plants or animals will be adversely affected. Existing Federal, State, or

local laws will not be violated. Analysis indicates there are no significant, cumulative impacts to the environment.

Based on the above findings, the decision to implement the proposed plan is determined not to be a major Federal action that would significantly affect the quality of the human environment. Therefore, an environmental impact statement will not be prepared for this project.

Approved:



Regional Director
Rocky Mountain Region
National Park Service
Department of the Interior

11/8/88
Date

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INTRODUCTION

An environmental assessment (EA) and development concept plan (DCP) was made available for public review in September 1988. The public was afforded 30 days to comment. The EA addressed this plan as well as two additional alternatives devised to provide various degrees of management intensity and visitor use. Also included in the EA was a description of environmental consequences that could result from implementation of the various alternatives and this plan. A Finding of No Significant Impact (FONSI) was approved in November 1988, and is included in this document. The FONSI describes the National Park Service decision and a finding that this plan's implementation will not constitute a significant impact.

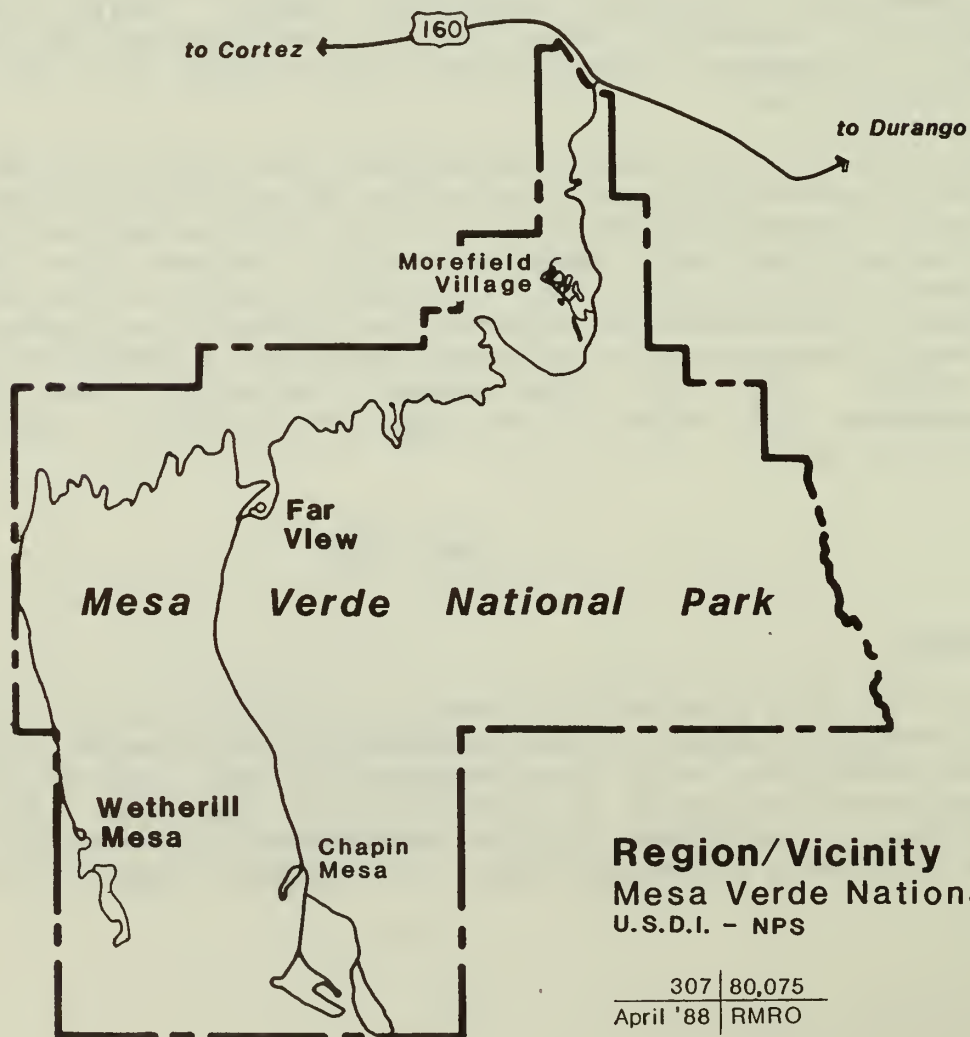
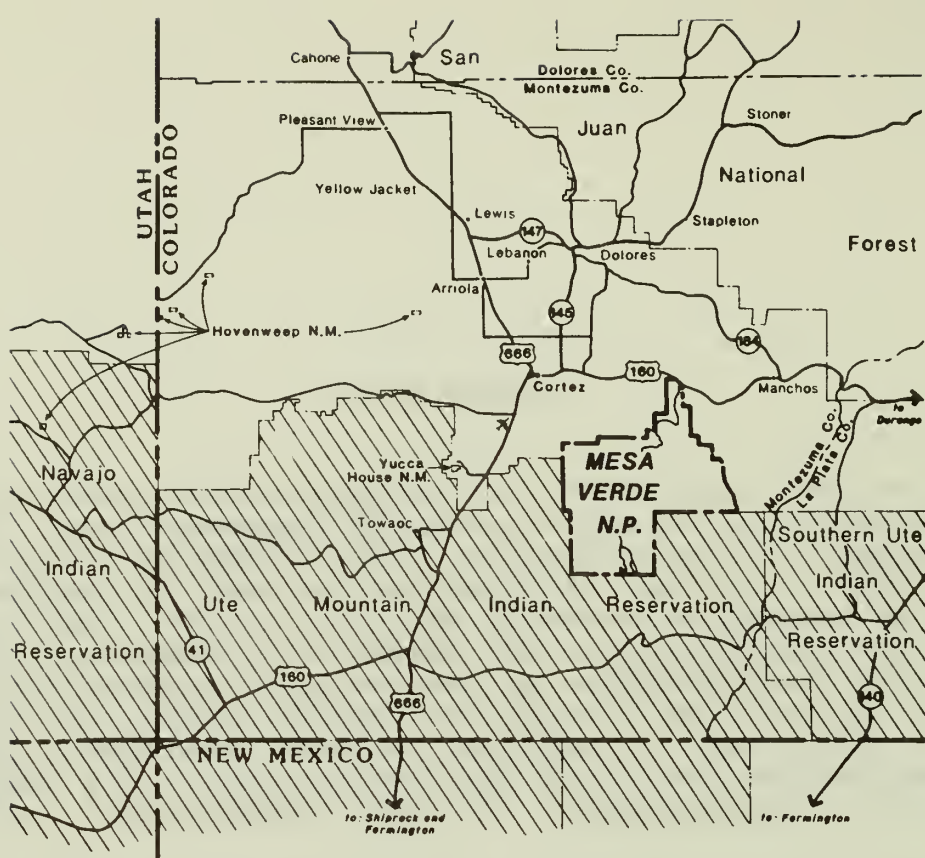
Mesa Verde National Park occupies approximately 52,074 acres of southwestern Colorado, Montezuma County, Third Congressional District. Wetherill Mesa lies in the general vicinity of the park's southwest corner with road access from the Far View developed area.

Mesa Verde's 1979 General Management Plan (GMP) states "Access to Wetherill Mesa will continue to be by public bus from Far View." This plan amends the GMP by replacing the concessioner-operated bus system with private vehicles to gain access from Far View to Wetherill Mesa. However, the GMP's provision to evaluate and consider alternative transportation systems to access Chapin and Wetherill Mesas when an entrance facility is completed will remain in effect. This plan also amends the park's 1981 Interpretive Prospectus with regard to programs and facilities associated with Wetherill Mesa.

THE PLAN

PURPOSE

This plan will provide for levels of visitor use more commensurate with Wetherill Mesa's resource capacity, while reducing operational costs associated with road maintenance and funding of a visitor transportation system to gain access to the mesa. The plan also provides an alternate visitor experience at Wetherill Mesa from that available on Chapin Mesa. At Wetherill Mesa the visitor will



leave his car and travel by mini-train and foot to his destination. Facilities will reflect a lesser developed atmosphere.

FAR VIEW

At the Far View Visitor Center, orientation and trip planning assistance regarding opportunities at Wetherill Mesa will be provided. These functions will continue at Far View until a visitor center is constructed at the park entrance as prescribed by the park's GMP. Because private vehicles will be used to access Wetherill Mesa, the Far View Visitor Center parking lot will be available exclusively for that use. Visitors will no longer use this parking lot as a staging area for bus service to Wetherill. There should be no need for parking lot expansion. Within a one-quarter mile segment of the main park road, there are four intersections available to the visitor. Traffic patterns will be monitored and if necessary, corrective actions will be taken to help alleviate confusion and to improve traffic flow to the Wetherill access road. Corrective actions at the main park/Wetherill access road intersection that are proposed if monitoring indicates a need include: turning lanes along the main park road, directional and informational signing for Wetherill Mesa, and a vehicular "turnaround" loop at the vehicle restriction sign.

A temporary picnic area was placed at Far View as part of the interim plan. This proved to be successful and very popular with the visitor. Under this plan the picnic area will be expanded near its present location, between the Far View Visitor Center parking lot and Wetherill Mesa access road. Improvements will consist of picnic tables and trash receptacles. A few of the picnic sites should include a shade structure(s).

ACCESS

As stated earlier, private vehicles will be used to access Wetherill Mesa. However, because of steep grades, tight turns, and a need to reduce road reconstruction costs, use will be restricted to vehicles with a gross vehicle weight of under 8,000 pounds and length of no more than 25 feet. A supplemental concessioner-operated van service will be available for visitors traveling by larger recreational vehicles, bus tours, or for visitors who simply do not wish to drive 12.8 miles of mountainous road. The van service will originate from Far View and require a fee. The service will be available on a request basis.

The Wetherill Mesa access road will generally be open only during the daylight hours. A gate at Far View will be used to enforce closures. Season of operation will be dependent on road base saturation in the spring and park funding levels in the fall. In

the spring the road will not be open until conditions are dry enough to insure no damage to road structure. Closure in the fall, usually mid-September, will be based on dollars available to fund NPS seasonal employees and to fund operation of the mesa top mini-train.

There are currently seven vehicular pullouts along the Wetherill Mesa access road. They provide the visitor an opportunity to learn about different cultural and natural history topics. The first pullout will be obliterated and restored to a natural-appearing landscape. It is located at the base of a steep incline and poses safety problems. Also, the views of Montezuma Valley which it provides are duplicated elsewhere. A new pullout between stops three and four, which provides views to the park interior that are not presently available is proposed. Each of the pullouts will be developed as a wayside to include parking, trails, overlooks, exhibits and trash receptacles. Some pullouts will also include picnic tables. Also, approach signs of a standard type designed specifically for Wetherill Mesa will be installed for each pullout.

To ensure continuous use of the Wetherill Mesa access road, both interim and long-range actions are prescribed for road improvements. Interim actions include reconstruction of 2 miles with a 4-inch base course and a 1.5-inch plant mix overlay and about 2 miles of roadway will require a 1.5-inch leveling course. Chip seal and striping of the entire 12.8-mile length is also necessary in addition to water control devices. Life expectancy of the interim actions is about five years. Following this period, long-range road improvements would be required. This would include a 1.5-inch plant mix overlay of the 10.8 miles not reconstructed as part of the interim actions.

CIRCULATION

In 1987 the visitor's average length-of-stay on Wetherill Mesa was about 3.5 hours. With implementation of proposals contained in this plan, it is expected the average length-of-stay will increase to about four hours. Capacity of the mini-train services is about 200 visitors per hour, well within the mesa's capacity of 280 visitors per hour. With an average length-of-stay of 4 hours, about 800 visitors at one time can be expected to occupy the mesa. This will require expansion of the Wetherill Mesa parking lot from its design capacity of 200 to about 250 spaces. In addition to parking lot expansion, trash receptacles, striping, and signing will be provided. Circulation through the parking lot will be one-way and current two-way intersections will be modified to reflect one-way traffic patterns. Portions of the existing periphery drive will be removed and land rehabilitated. A service road for access to concessions and the mini-train staging area will be provided.

A new mini-train staging area will be constructed south of the

parking lot. Improvements include shaded seating for 100 visitors, trash receptacles, drinking fountains, and an interpretive exhibit structure. Three operating 54-passenger mini-trains, with a capacity of 200 visitors per hour, will transport visitors from the mini-train staging area to the mesa's various surface ruins and cliff dwellings. The mini-train would operate on the existing 3.9-mile mini-train route. From the mini-train, visitors may embark from eight trailheads to various overlooks, ruins, and cliff dwellings. Two primary trailheads would be equipped with shaded seating for 50 visitors, comfort station, drinking fountain, public telephone, and trash receptacles. The remaining six trailheads would include shaded seating for 25 visitors, drinking fountain and trash receptacles. Trails would provide access to Long House, Long House Overlook, Badger House Community Sequence, Nordenskiold's Ruin 16 Overlook, and Kodak House Overlook.

For visitors not wishing to use the mini-train, about three-quarters of a mile of trail would be constructed between the mini-train staging area, the Badger House Community Sequence trailhead, and the Nordenskiold's Ruin 16 trailhead. Also, the trail providing access to Step House from the mini-train staging area would be retained.

To help increase visitor opportunities and use of Wetherill Mesa, this proposal identifies the need to comprehensively evaluate Mug House and other cultural resources in the Wetherill Mesa vicinity for possible opening to limited public use. The evaluation should consider fragility of the cultural resources, means of providing ingress and egress to the sites, parking and overall operational costs.

VISITOR USE AND INTERPRETATION

Wetherill Mesa will continue to provide an alternate visitor experience from that available on Chapin Mesa. Away from large crowds and nearby roads and parking areas, the visitor may discover the world of the Anasazi at a more relaxed pace. Some overlap of interpretive programs available on each mesa is inevitable. Visitor experience will be distinguished from that available on Chapin Mesa by restricting development of Wetherill.

Wetherill Mesa will be open for day use only. Generally the season of use will be from mid-June to the first week of September. Availability of funding will determine the length of Wetherill's visitor use season.

This plan amends the park's 1981 Interpretive Prospectus regarding direction associated with Wetherill Mesa. The objectives of the interpretive program on Wetherill Mesa are:

- To exhibit and provide a meaningful experience for park visitors,

and to give them an opportunity to learn and understand a portion of prehistoric Native American culture.

- To foster an understanding of and the need to protect, safeguard and preserve archeological and natural values.

- To introduce the visitor to the natural history and the variety of plant and animal life in what appears to be a fairly marginal environment.

At the park entrance, incoming visitors will be made aware of the opportunities available at Wetherill Mesa as well as the access road use restrictions. This will be accomplished by giving each visitor, in addition to the park brochure, a Summer Activity Schedule explaining the opportunities available at Wetherill Mesa and Chapin Mesa. At the park entrance, visitors also will be encouraged to stop at the Far View Visitor Center where visitors will gain a perspective of the possible activities available to them in the park.

To achieve the desired objective of use dispersion toward Wetherill Mesa, Far View Visitor Center will provide an orientation to Wetherill opportunities. A site bulletin emphasizing Wetherill's opportunities will be available at Far View. Some informational assistance which visually portrays Wetherill's resources is necessary. This is of importance in letting the visitor know the range of options available in exploring Mesa Verde.

When the proposed Mesa Verde Visitor Center/Research Center complex is developed at the park entrance, this new facility will provide information and orientation to the entire park, including Wetherill Mesa. This facility will "set the stage," by providing visitors with an overview of the park story so that they can better understand and appreciate Mesa Verde's resources and values. At the park entrance, visitors will be encouraged to stop at the entrance visitor center before journeying into the park. Upon completion of the new visitor center complex, functions of the Far View Visitor Center must change, possibly to an ethnographic or natural history museum.

Interpretive opportunities in this plan will be expanded. The highly scenic Wetherill Mesa access road will be managed to emphasize interpretive opportunities. Viewpoints and waysides will be developed and keyed to the geology and natural history across the expanse of the North Escarpment to take advantage of environmental values. Visitors stopping at pullouts to read the wayside exhibits will have a heightened awareness of the interdependence of people, both prehistoric and modern, and their environments.

The interpretive themes to be addressed along the road are:

- Both prehistoric and modern man chose the Montezuma Valley for dryland farming.
- Along the North Escarpment, the complete geologic section of Mesa Verde is exposed.
- The air quality at Mesa Verde is endangered. This is evidenced by the ability/inability to see Shiprock, New Mexico, and the Chuska-Lukachukai Mountains in northeastern Arizona.
- The changing character of the geologic formations controls the distribution of cliff dwellings.
- Fire has had an impact on the area's environment and people, both in prehistoric and modern times.
- Focus on the view to the park's interior, natural history and the Cliff House Sandstone formation.

Approach signs, with identification tied to a site bulletin, will be installed for each wayside. In order to create a homogeneous look, wayside exhibits will be compatible with those created by Harpers Ferry Center, currently in place at Chapin Mesa and the Badger House Community Complex of ruins on Wetherill Mesa.

Wetherill Mesa will provide an alternate, more relaxed type of experience than the other public use areas of Mesa Verde. Once the visitor leaves his car, he travels by mini-train and foot to his destination. The visitor contact facility at Wetherill Mesa will reflect this lesser developed atmosphere. The primary function will be to provide the visitor with information/orientation on the services and activities available. This will include orienting the visitor to the mini-train system, the ranger-guided tours, the self-guided tours, the trails, the mini-train and tour timetables, and the amount of time necessary to explore the different options on Wetherill Mesa.

After leaving the Wetherill Mesa parking lot, the visitor would proceed on a trail and encounter an interpretive kiosk with changeable bulletin board-type exhibit cases. Adjacent to this kiosk will be a ranger/visitor contact station. The ranger station, concession facilities, and mini-train staging area will encircle a courtyard or "interpretive mall". Within the interpretive mall, exhibits introducing the visitor to Wetherill will be available. In order to increase the depth of visitor understanding of Mesa Verdean Anasazi, "life skills" demonstrations may also take place in the interpretive mall area. The purpose of the demonstrations could be to show the relationships between modern pueblo people of the Southwest and the prehistoric Anasazi of Mesa Verde.

From the interpretive mall and mini-train staging area, trail

access to Step House and the Badger House Community Sequence will be available. The mini-train will provide primary access to a majority of the features on Wetherill Mesa. The mini-train operator, trained in park interpretation, could provide information to the visitor. Features on Wetherill Mesa include the following:

Step House

Step House Cave is unique because the ruins of two separate occupations can be compared on this one site. This cliff dwelling is reached by a 1/2-mile self-guided tour, with a ranger on duty at the ruin to answer questions. A trail booklet is available for purchase at the head of the trail. This ruin is within walking distance of the interpretive mall. It is recommended that this self-guided trail continue to be offered to the public, with the flexibility to change it to a guided tour, based upon the demand at Long House.

Nordenskiold's Ruin #16

A trail would provide access to a small viewpoint and offer views of Rock Canyon and a small unexcavated cliff dwelling, Gustaf Nordenskiold's Ruin #16.

This trail will be maintained as a nature trail, with the theme, "plant/animal life in Mesa Verde is delicate and interrelated," being presented either through a trail booklet, or by small, appropriate interpretive trail signs.

Before this ruin is interpreted and an overlook constructed, the park will rename this cliff dwelling to better reflect its significance, type, or history.

Long House

This ruin will be available to the public as a guided or unguided tour. Because of the configuration of the ruin, the number of tours able to be conducted is limited. In 1987, the 17 tours conducted each day were able to handle 850 people.

As visitor use increases, flexibility in managing Long House needs to be considered. The ruin may have to be open on a self-guiding basis, visitors would have the time and opportunity to explore the kiva previously stabilized. Two rangers will be needed to control use in the ruin, but will allow a greater number of people to explore the ruin. A guided tour could then be offered at Step House.

Badger House

The Badger House Community Trail offers a 3/4-mile self-guided tour. A trail guide booklet is available at the beginning of this

handicapped-accessible trail and interpretive wayside exhibits complement each ruin. It is recommended that the present interpretive functions at these four Mesa-top ruins: modified Basketmaker Pithouse; Pueblo Village and Great Kiva; Badger House; and Two Raven House, be retained. A roving ranger should be in the area and available to the public.

Kodak House Overlook

This site is handicapped-accessible. The current interpretive signing at the Overlook is not consistent in material and design with the exhibits at the Badger House Community group. This sign should be removed and replaced with one that is similar to those at the Badger House Community group.

Long House Overlook

This site is handicapped-accessible. As with Kodak House, the interpretive signing is not consistent with the material and design at Badger House, and should be removed and replaced with materials similar to those used at Badger House.

CONCESSIONS

Because of Wetherill Mesa's relative remoteness and the visitor's average length of stay, a food and beverage service is necessary. Since visitors have an opportunity for breakfast and dinner at the Far View Cafeteria or Lodge, the focus should be on a fast food, self-service, light lunch and snack menu. While the menu should not be extensive, the meal experience should be a quality one.

The design and construction of the facility should be compatible with the quality and architectural theme of facilities proposed for Wetherill Mesa. There should be a sufficient number of tables and benches under an open-roofed structure to adequately handle those visitors who are purchasing food from the concessioner, as well as those who are bringing some or all of their food with them. An alternative to a permanent food preparation structure can be considered if its appearance is compatible with Wetherill's architectural theme. The alternative is a self-contained van capable of providing standard fast food menu items.

There are abundant opportunities to purchase gifts and souvenirs once the visitor leaves Wetherill Mesa. Since these items are not necessary for the use and enjoyment of the mesa, none will be sold at this location. Shopping can be conveniently done at the Far View location, the campground, and on Chapin Mesa. The only exceptions could be some convenience items such as film, aspirin, antacid, and sunscreen.

VISITOR SUPPORT FACILITIES

Adjacent to the proposed ranger/visitor contact station will be a new comfort station with modern amenities. This facility will be in addition to comfort stations previously described for other areas. The existing modular comfort station in the parking lot loop will be retained. When the life cycle of this facility expires, it will be replaced with a facility meeting Wetherill Mesa's architectural themes. Need should be documented prior to replacement.

OPERATIONS

As part of the "interpretive mall", a ranger/visitor contact station will be constructed. About 600 square feet in size, this facility will also include provisions for a first aid station. A maintenance storage yard located just north of the mesa top parking lot, will be retained. All maintenance activities will continue to be provided by Mesa Verde's central maintenance staff and facilities.

Facilities for housing and repair of the mini-train will be available in the existing Wetherill Mesa storage yard.

Implementation of this proposal will rely on concessioner involvement, particularly in regard to operation of the mini-train service. NPS staffing levels required to implement this proposal are as follows:

Function	FTE's
Interpretation	4.80
Natural Resource Management & Visitor Protection	.45
Cultural Resource Management	.57
Maintenance	<u>1.93</u>
Total	7.75

Were the season of operation extended from mid-May to the end of September, staffing levels required would be as follows:

Interpretation	7.92
Natural Resource Management & Visitor Protection	.53
Cultural Resource Management	.57
Maintenance	<u>2.10</u>
	11.12

Estimated annual operations and maintenance budget, including cost for concessions operation of the mini-train, associated with this proposal is \$129,000. If the season of operations were extended from mid-May to the end of September, annual operations costs would increase to \$176,000.

CONSTRUCTION COST ESTIMATES/PHASING SCHEDULE

Following are the conceptual phasing program and class "C" development cost estimates for this plan.

Item	Net Cost	Advance & Project Planning	Gross Cost
Phase I			
Reconstruct 2 miles of road	\$309,000	\$127,000	\$436,000
Mini-train staging area:			
-shade structure	35,000	14,000	49,000
-seating for 100	10,000	4,000	14,000
-2 drinking fountains	5,000	2,000	7,000
-trash receptacles	1,000	500	1,500
-interpretive exhibit structure	2,500	1,000	3,500
Reroute mini-train road	9,000	2,000	11,000
3/4-mile trail construction, mini-train staging to Badger House Community Sequence	30,000	12,000	<u>42,000</u>
		Total Phase I	\$564,000
Phase II			
Far View V.C. trip planning & orientation exhibits	\$ 5,000	\$ 2,000	\$ 7,000
Leveling course-2 miles road	111,000	46,000	157,000
2 Primary trailheads:			
-shade structure	30,000	12,000	42,000
-seating for 50	5,000	2,000	7,000
-comfort station	170,000	70,000	240,000
-drinking fountain	5,000	2,000	7,000
-public telephone	5,000	2,000	7,000
-trash receptacles	2,000	500	2,500
3 overlook wayside exhibits	9,000	2,000	11,000
Ruin 16 overlook	10,000	4,000	14,000
100' paved parking lot trail	2,000	500	2,500

Item	Net Cost	Advance & Project Planning	Gross Cost
Interpretive kiosk	\$ 10,000	\$ 4,000	\$ 14,000
600 SF ranger/visitor contact/ first aid station	60,000	24,000	84,000
Interpretive mall w/exhibits (6,000 SF)	35,000	14,000	49,000
400 SF concessions building	30,000	12,000	42,000
Covered concessions seating for 100	40,000	16,000	<u>56,000</u>
	Total Phase II		\$742,000

Phase III

Chip & seal surface & striping 12.8 miles of road	\$176,000	\$ 72,000	\$248,000
Wetherill turning lanes (400 LF)	38,000	15,000	53,000
Far View vehicular turnaround	25,000	10,000	35,000
Far View directional and information signing	2,000	1,000	3,000
Far View picnic area:			
-tables (25)	10,000	4,000	14,000
-trash receptacles (15)	5,000	2,000	7,000
-shade structures (2)	16,000	7,000	23,000
Wetherill road gate	1,000	500	1,500
Obliterate and restore vehicle pullout	15,000	6,000	21,000
Construct vehicle pullout:			
-10-vehicle parking	16,000	7,000	23,000
-wayside exhibit	3,000	1,000	4,000
-trash receptacle	500	--	500
Access road wayside exhibits (6)	18,000	4,000	22,000

Item	Net Cost	Advance & Project Planning	Gross Cost
Wayside approach signs	\$ 5,000	\$ 1,000	\$ 6,000
6 "secondary" trailheads:			
-shade structure	42,000	17,000	59,000
-seating for 25	9,000	4,000	13,000
-drinking fountain	15,000	6,000	21,000
-trash receptacle	3,000	1,000	4,000
Comfort station	85,000	35,000	<u>120,000</u>
		Total Phase III	\$678,000

Phase IV

12.8 miles road bituminous surface treatment	\$175,000	\$ 71,000	\$246,000
Wetherill parking lot expansion, 50 spaces	65,000	26,000	91,000
Remove & restore parking lot periphery drive	11,000	4,000	15,000
Construct service road (150 LF)	14,000	6,000	20,000
Reconstruct parking lot intersections	15,000	6,000	<u>21,000</u>
		Total Phase IV	\$393,000
		GRAND TOTAL	<u>\$2,377,000</u>

FUTURE PLANS/STUDIES

Actions within this plan will require monitoring, evaluation, and future studies to determine adequacies and future measures that may be required. Items identified thus far are as follows:

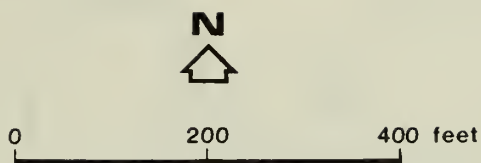
Evaluation of Mug House and other cultural resource sites in the Wetherill Mesa vicinity to determine potential use by the public.

Follow-up visitor use survey (in about 5 years) to help determine visitor perception of plan proposals, changes in visitation characteristics, and distribution of use in Mesa Verde.

Wetherill Mesa Wayside Exhibit Plan.

Evaluation of potential functions for the Far View Visitor Center when a new visitor center is constructed near the park entrance.

Monitoring of traffic patterns along the main park road at Far View to determine if improvements in traffic flow should be pursued.



CONSTRUCT NEW PICNIC AREA WITH
-TABLES
-TRASH RECEPTACLES
-SHADE STRUCTURES

CONSTRUCT VEHICULAR
"TURNAROUND" LOOP

INSTALL ROAD
CLOSURE GATE

Far View
Terrace

CONSTRUCT TURN LANES
& INSTALL DIRECTIONAL &
INFORMATIONAL SIGNS FOR
WETHERILL MESA

Far View
Visitor
Center
PROVIDE ORIENTATION & TRIP
PLANNING ASSISTANCE FOR
WETHERILL MESA

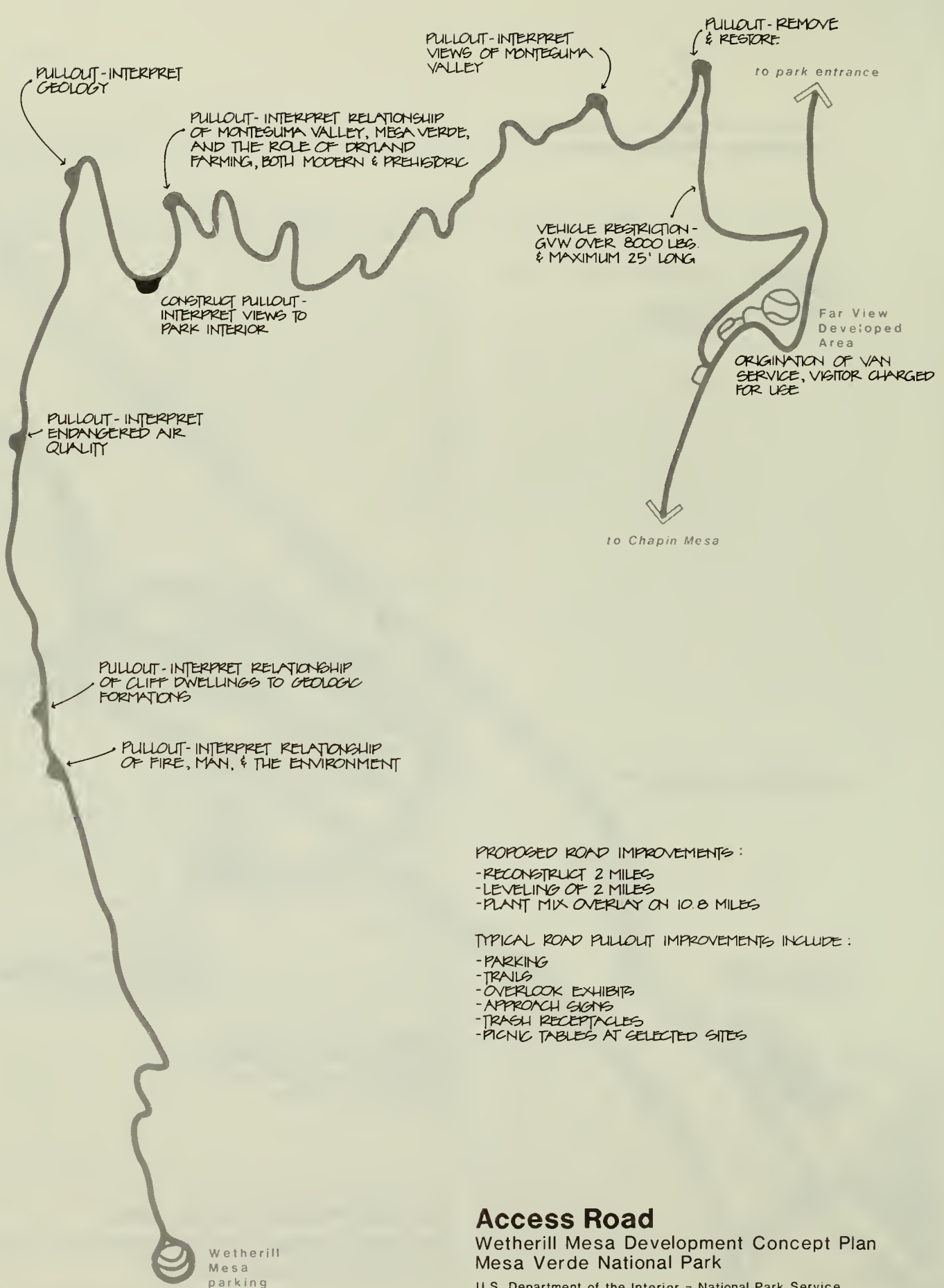
visitor center
access subway

to park
entrance

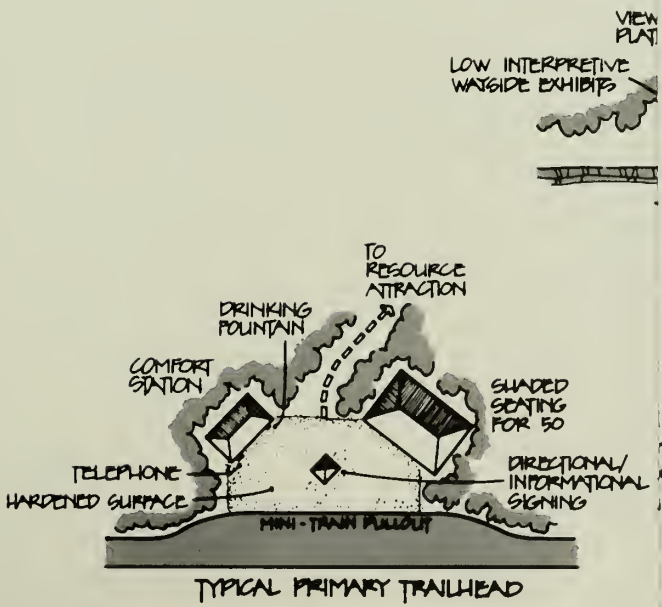
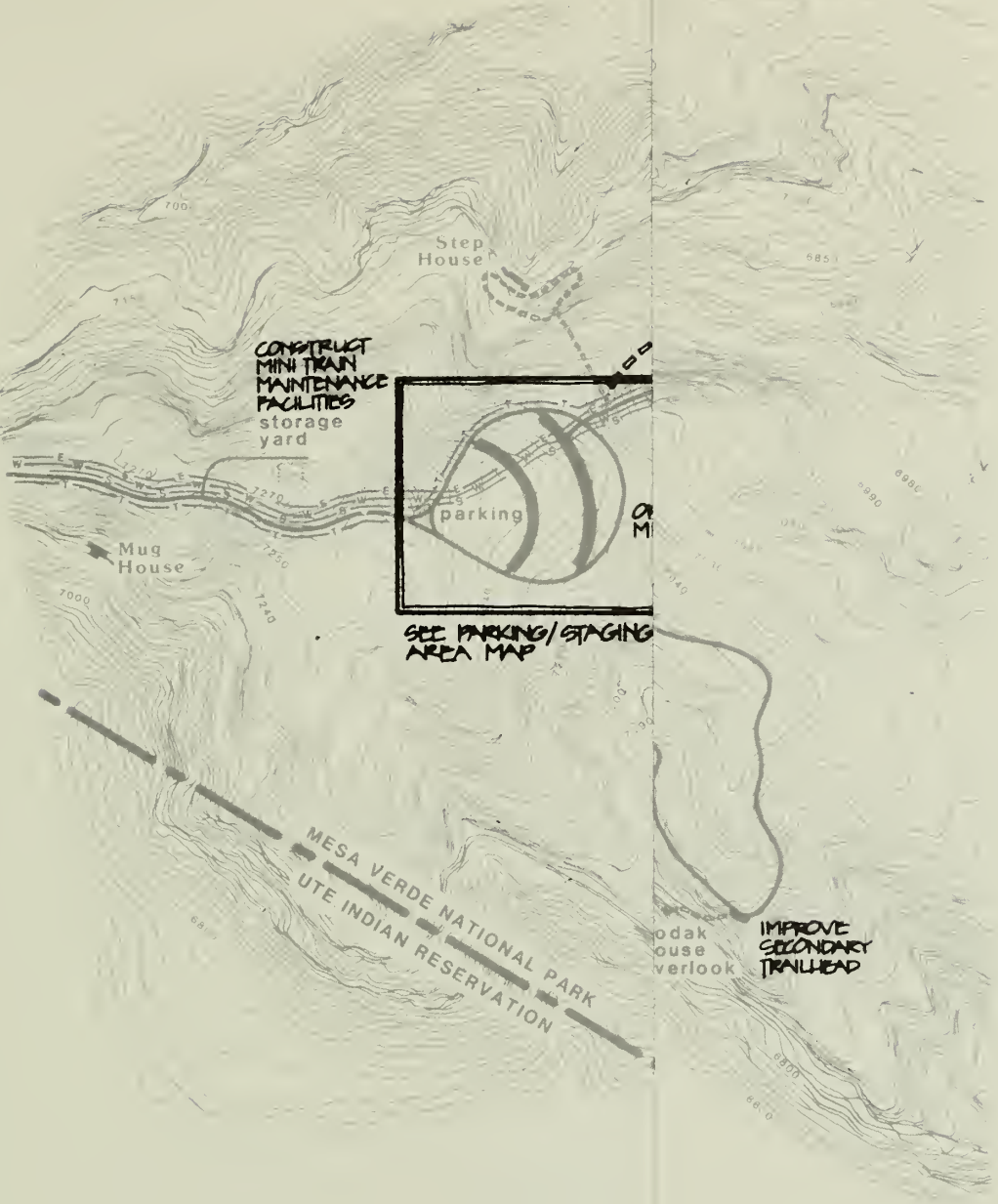
to
Wetherill Mesa

Far View Developed Area
Wetherill Mesa Development Concept Plan
Mesa Verde National Park
U.S. Department of the Interior - National Park Service

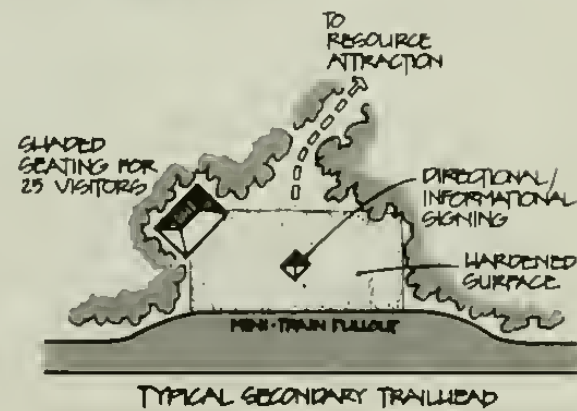
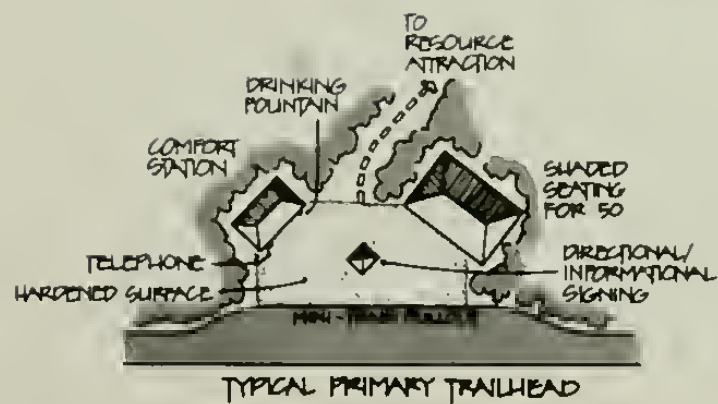
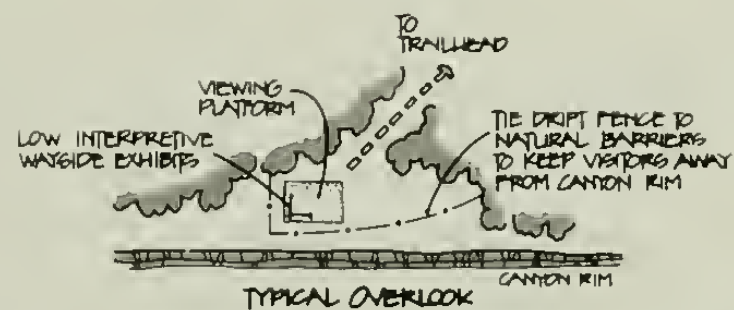
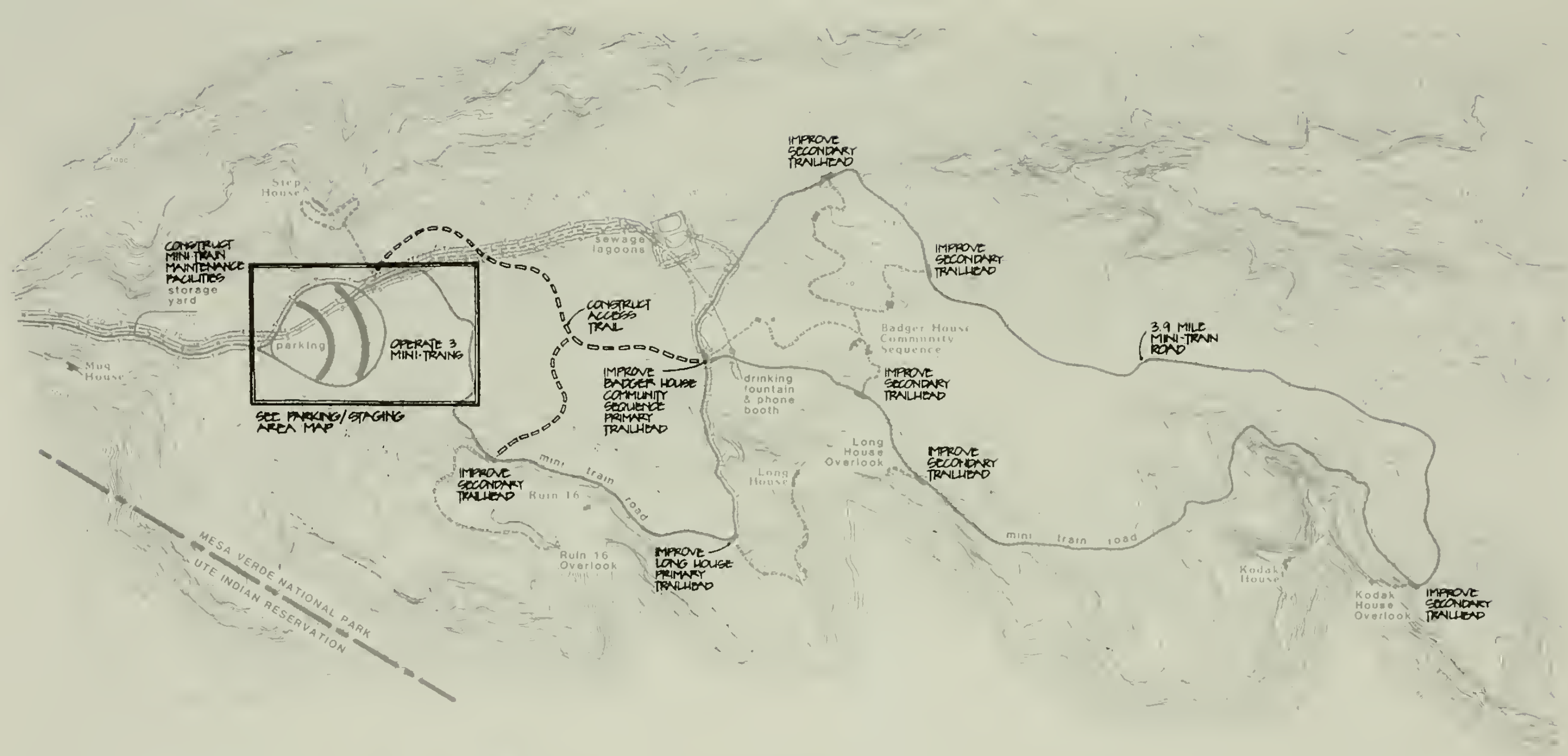
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 onal Park Service



PRIMARY TRAILHEAD IMPROVEMENTS INCLUDE

- SHADED SEATING FOR 50
- PUBLIC TELEPHONE
- COMFORT STATION
- DRINKING FOUNTAIN
- TRASH RECEPTACLES

SECONDARY TRAILHEAD IMPROVEMENTS INCLUDE

- SHADED SEATING FOR 25
- DRINKING FOUNTAIN
- TRASH RECEPTACLES

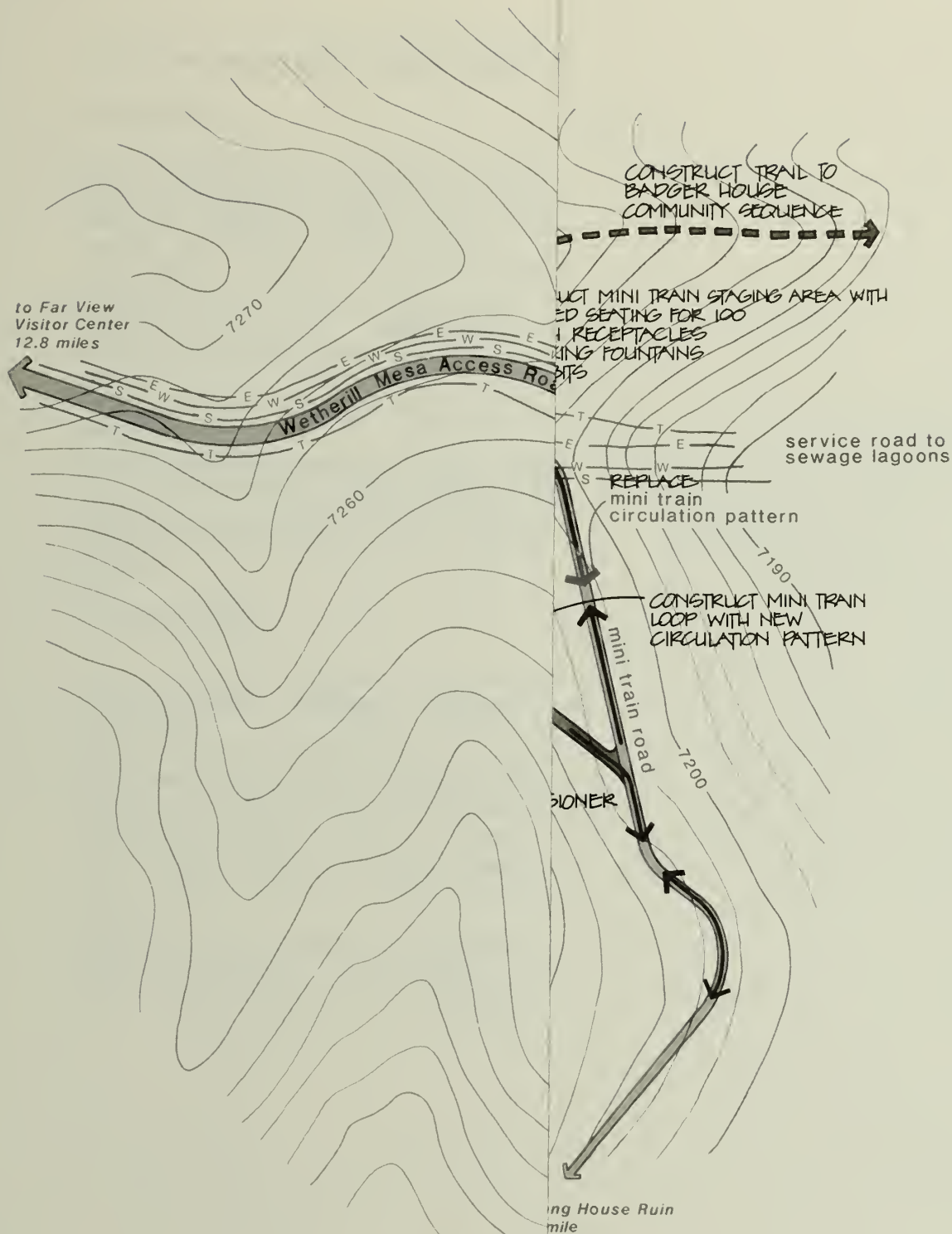


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Mesa Top Circulation

Wetherill Mesa Development Concept Plan
Mesa Verde National Park

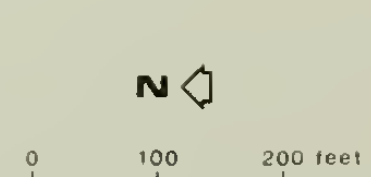
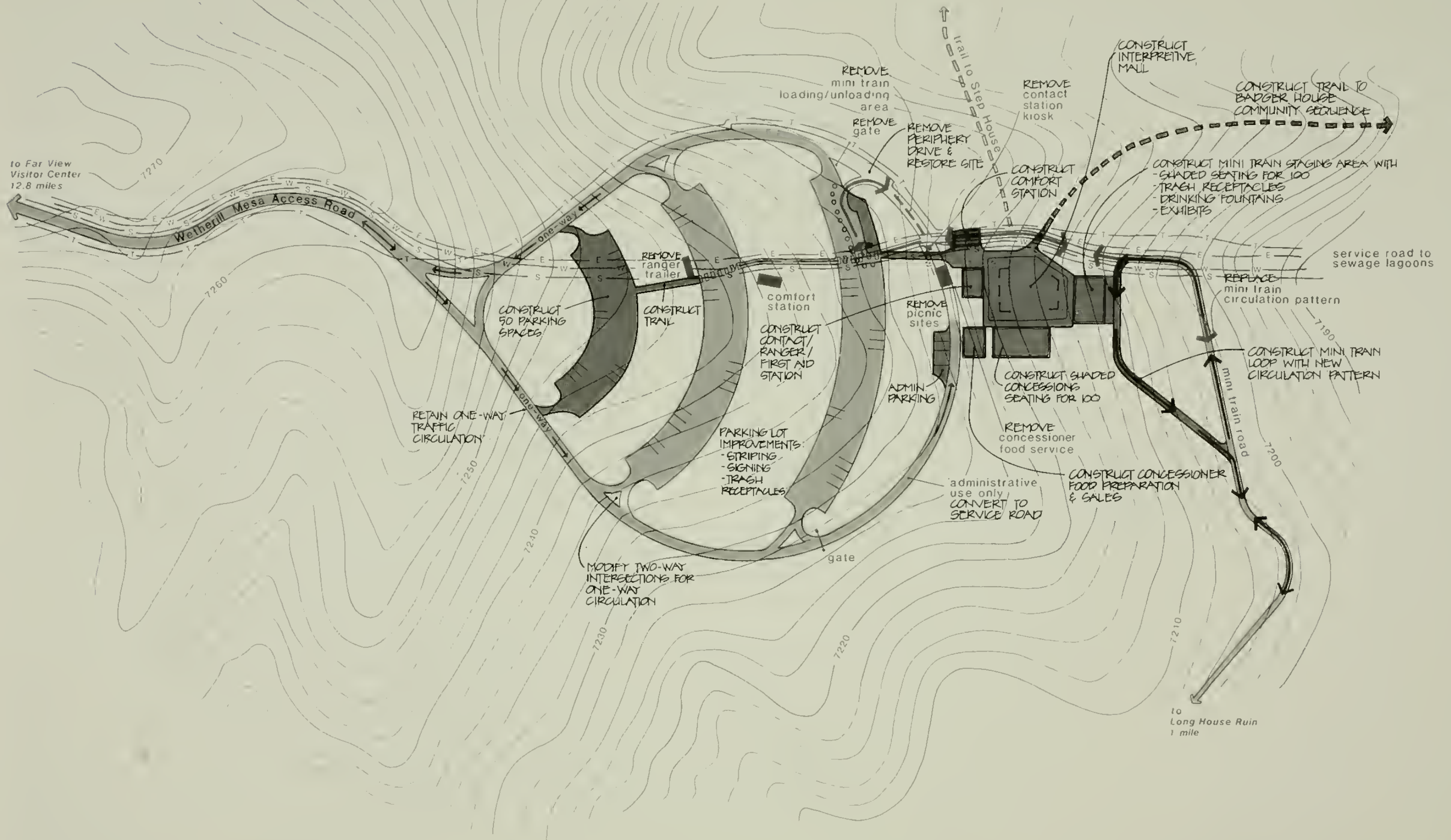
U.S. Department of the Interior - National Park Service



Working/Staging Area

Wetherill Mesa Development Concept Plan
Zia Verde National Park

Department of the Interior - National Park Service



Parking/Staging Area
 Wetherill Mesa Development Concept Plan
 Mesa Verde National Park
 U.S. Department of the Interior - National Park Service

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MESA VERDE NATIONAL PARK VISITOR
SURVEY ANALYSIS - 1987

A representative sample of visitors to Mesa Verde National Park was interviewed during the months of April through October 1987. Exit interviews were conducted on 21 randomly selected days each month during systematically selected time-of-day periods. The sampling was designed such that there was no bias in times-of-day or days-of-week.

Two separate analyses were conducted on the data 1) all data from April through October and 2) analysis of Zip code data gathered from April through September. The number of cases (N size) varies according to the analysis. For the Zip code analysis 887 valid zip codes were found in the data. These were analyzed as explained in the Visitor Residence Analysis Section. There were 1086 total records used in the remainder of the analyses as shown in table 1. Of these, 86.37% were recreation visits as shown in table 2. There were 155 nonrecreation parties with a total of 269 persons so there was an average of 1.75 persons per nonrecreation party. This N of 938 recreation visits is what was used for the breakdown of answers to questions 4 through 12 (see attached questionnaire). The number varies slightly due to a few missing answers to some of the questions, but since cross tabulation was done only for the data shown in table 4 to determine recreation party sizes, differing N's is not a problem.

Table 1 includes the 1086 total count, both recreation and nonrecreation parties. These are parties, not persons. In table 2, the 86.37%, as discussed above, represents the proportion of recreation visit parties. The answers to questions 4 through 12 shown on table 2 are for the recreation visits only (approximately 938). This is also true of table 3 on percent of visits to locations within the park.

TABLE 1

NUMBER AND PERCENT OF VEHICLE TYPES REPRESENT IN THE SURVEY

VEHICLE TYPE	NUMBER	PERCENT
SEDAN	696	64.09
CAMPER	229	21.09
REC. MOTOR HOME	107	9.85
MOTORCYCLE	23	2.12
TOWING TRAILERS	13	1.20
VAN	2	0.19
BUS	16	1.47

TOTAL 1086

TABLE 2

PERCENT OF RESPONDENTS ANSWERING YES TO SURVEY QUESTIONS

QUESTION NUMBER	SURVEY QUESTIONS		PERCENT
3	Are you here to visit the park		86.37
9	Is this your first visit		73.77
9	Was Mesa Verde your destination		30.60
10	Did you visit the Visitor Center		46.48
11	Did you visit the Museum		75.80
12	Direction to Park	East	53.80
		West	46.20

TABLE 3

PERCENT OF VISITS TO LOCATIONS BY MONTH AND TOTAL

LOCATION	MONTH							
	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
CHAPIN	91.02	100.00	77.24	77.22	70.59	88.96	100.00	85.15
WETHERILL	0	0	02.07	01.27	07.19	01.95	0	1.61
BOTH	03.85	0	19.31	20.89	18.95	07.14	0	2.05
NEITHER	05.13	0	01.38	00.63	03.27	01.95	0	11.19

In Table 2, the 46.48% persons who went to the Visitor Center is for the total sample of recreation visits. Because the Visitor Center was not opened until sometime in May and closed on September 27th the total sample represents some of the time when people could not go to the Visitor Center. For the period that the visitor center was open (June through September) 67.05% of the recreation visit parties visited the Visitor Center.

Table 4 on party sizes and amount of time spent in the park is an analysis of records that had valid party size, entry and exit dates and times and includes no buses. The total N here is 909 which represents the 938 recreation parties minus 16 buses minus 13 records in which either entry or exit time or date was missing.

TABLE 2A QUESTION NUMBER 10

NUMBER AND PERCENT OF PARTIES VISITING

THE VISITOR CENTER

MONTH	VISIT	PERCENT
JUN	145	63.45
JUL	158	70.06
AUG	153	69.28
SEP	154	67.53
TOTAL	610	67.05

TABLE 4

TOTALS AND AVERAGES FOR OVERNIGHT AND DAY USERS BY CATEGORY AND MONTH

USE CATEGORY

OVERNIGHT USERS	APR	MAY	JUN	JUL	AUG	SEP	OCT	TOTAL
NUMBER OF PARTIES	17	40	66	49	70	61	34	337
NUMBER OF PERSONS	36	82	176	135	196	138	84	847
NUMBER OF HOURS	940	2712	6232	4848	8698	4518	3058	30674
AVERAGE OF HOURS	26.12	33.07	35.41	35.91	44.38	32.74	36.41	32.22
AVERAGE OF NIGHTS	1.24	1.53	1.58	1.59	1.94	1.46	1.68	1.62
AVERAGE PARTY SIZE	2.12	2.05	2.67	2.76	2.80	2.26	2.47	2.51

DAY USERS	APR	MAY	JUN	JUN	AUG	SEP	OCT	TOTAL
NUMBER OF PARTIES	56	84	81	102	85	92	72	572
NUMBER OF PERSONS	133	190	247	357	261	235	164	1587
NUMBER OF HOURS	557	847	1053	1482	1168	1029	672	6815
HOURS PER PERSON	4.19	4.46	4.26	4.15	4.48	4.38	4.10	4.29
AVERAGE PARTY SIZE	2.38	2.26	3.05	3.50	3.07	2.55	2.28	2.77

MESA VERDE - VISITOR USE SURVEY

SURVEY DATE: _____ TIME PERIOD: _____ to _____ (24 hr.)

CONTACT: Vehicular LOCATION: Exit Station

INTERVIEW NUMBER

1 2 3 4 5 6 7 8 9 10

1. Party size

2. Type of Vehicle: (B=Bus;
C-Camper Pickup; M=Motorcycle;
RV-Motorhome; S-Sedan;
T-Towing Trailer)

3. Are you here to visit the
park?
YES NO YES NO YES NO YES NO YES NO YES NO YES NO YES NO

4. What area(s) did you visit?
C-Chapin; M-Metherill; B-Both
N-Neither

5. When did you arrive? (Date
(24 hr. Time)

6. Are you leaving for the
last time? If yes: (Date
(24 hr. Time)
If no, expected: (Date
(24 hr. Time)

7. Visitor Zip Code:

8. Is this your first visit
to MEVE?

9. Was MEVE your destination?
If NO, what was?
YES NO YES NO YES NO YES NO YES NO YES NO YES NO YES NO

10. Did you visit Far View VC?
YES NO YES NO YES NO YES NO YES NO YES NO YES NO YES NO

11. Did you visit the museum?
YES NO YES NO YES NO YES NO YES NO YES NO YES NO YES NO

12. Did you approach the park on
EAST or WEST Highway 160?
EAST WEST EAST WEST EAST WEST EAST WEST EAST WEST EAST WEST

VISITOR RESIDENCE ANALYSIS

The first three digits of the visitors' zip codes were used in an analysis to determine where the visitors are coming from. The number of recreation visits from each zip code area reported as "Here to visit the park" were used. When a zip code was reported for a bus, the total number of people on the bus was included under that zip. There were eight buses in the survey sample but one did not have a zip code so only seven were included in the analysis. This constituted 9.8% of the visitors in the study. The number of parties in the analysis was 793 plus 94 foreign parties.

There are two tables of results. The first is in numerical order of zip code, the second is ranked by frequency of users from the various zip code areas. Three digit zip codes only were used. The cities shown are cities in the three digit zip areas. Some three digit zip areas contain many small towns while some large metropolitan areas, such as that in and around Denver, have several three digit zip areas within them. Mileages shown are different on each table but in either case they are based on the locations defined by the latitudes and longitudes of the zip area within one degree. The three digit zip area plus the one degree are the limit of the mileage error. This error cancels out for the overall statistics such as mean distance traveled. The first table (the one containing zip codes) has air miles while the second has an estimate of road miles. Miles are calculated from the park's three digit (813) area which is Durango, CO, 108 degrees west longitude, 37 degrees north latitude.

The second table (including population) contains the frequencies found in the sample of Mesa Verde NP users ("SAMPLE") and frequencies that would be expected if 2375 persons came to Mesa Verde NP from the 334 places found in the sample based on an exponential model utilizing population and distance.

